This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-32. (Cancelled)

Claim 33. (Currently Amended) An embolectomy catheter system for removing a blood clot or other embolus from a location within the vasculature of a human or animal subject, the catheter comprising:

a guidewire;

an embolectomy catheter that is advanceable over said guidewire, said embolectomy catheter comprising:

an elongate flexible catheter body having a proximal end, a distal end, an inner tube, and an outer tube terminating proximal to a distal end of the catheter body;

an embolus removal apparatus on the inner tube, the embolus removal apparatus being initially disposed in a collapsed configuration and constrained in said collapsed configuration by a portion of the outer tube; and

a distal tip of the catheter body being located on the inner tube and adapted to pass through a blood clot or other embolus to be removed;

wherein the outer tube is axially retractable to remove the constraint on the embolus removal apparatus such that the embolus removal apparatus may expand

from said collapsed configuration to a deployed configuration without requiring axial movement or rotation of the guidewire; and

wherein the guidewire is longitudinally moveable relative to the embolus removal apparatus;

said embolus removal apparatus comprising a plurality of resilient members having proximal and distal ends that are secured to the catheter body and mid-portions that extend laterally away from the catheter body when the embolus removal apparatus is in its deployed configuration, thereby allowing embolic material to become entangled in said elongate members .

Claim 34. (Previously Amended) A system according to claim 33, wherein the outer tube extends distally within a proximal mouth of the distal tip prior to being retracted.

Claim 35-46. (Cancelled)

Claim 47. (Previously Amended) A system according to claim 33, wherein the ~~clot~~ embolus removal apparatus has a proximal end and a distal end, the distal end being attached to the inner tube and the proximal end being slidably secured to the inner tube in such a manner as to slide axially over the inner tube.

Claim 48-50. (Cancelled)

Claim 51. (Previously Presented) A system according to claim 33 wherein a lumen through which the guidewire may pass extends through the inner tube and through the embolus removal device.

Claim 52. (Previously Presented) A system according to claim 33 wherein the guidewire has a lumen through which a substance may be infused.

Claim 53. (Previously Presented) A system according to claim 33 wherein the embolus removal apparatus expands from its collapsed configuration to its deployed configuration without requiring rotation of any portion of the embolectomy catheter or guidewire.

Claim 54. (Cancelled)

Claim 55. (Cancelled)

Claim 56. (Cancelled)

Claim 57. (Cancelled)

Claim 58. (New) A method for substantially removing an embolus from a location within the vasculature or a human or animal subject, said method comprising the steps of:

A) providing a guidewire;

B) providing a catheter device that comprises i) an elongate flexible catheter body having a proximal end, a distal end, an inner tube, and an outer tube terminating just short of a distal end of the catheter body and ii) an embolus removal apparatus on the inner tube, said embolus removal apparatus comprising a plurality of elongate members having proximal and distal ends which are secured to the catheter body, said embolus removal apparatus being initially disposed in a collapsed configuration and constrained in said collapsed configuration by a portion of the outer tube; wherein a distal tip of the catheter body is located on the inner tube and is advanceable through the embolus to be removed and wherein the outer tube is axially retractable to remove the constraint on the clot removal device such that the clot removal device may radially expand to a deployed configuration wherein midportions of the elongate members extend laterally from the catheter body without requiring rotation of any portion of the catheter body;

C) inserting the guidewire into the vasculature of the subject;

D) advancing the catheter device over the guidewire to a position within the vasculature of the subject;

E) retracting the outer tube without concurrent axial or rotational movement of the guidewire, thereby causing the embolus removal apparatus to expand from its collapsed configuration to its deployed configuration;

F) causing the obstructive matter to become enangled in the elongate members of the obstructive matter removal apparatus; and

G) withdrawing the guidewire, catheter device and the obstructive matter from the subject's body.

Claim 59. (New) A method according to claim 58 wherein a lumen extends through the inner tube and through the obstructive matter removal apparatus and the guidwire extends through that lumen during performance of Step D.

Claim 60. (New) A method according to claim 58 wherein the guidewire is advanced through the obstructive matter prior to performance of Step D.

Claim 61. (New) A method according to claim 58 wherein the guidewire has a lumen through which a substance may be infused and wherein said method further comprises the step of infusing a substance through the lumen of the guidewire.